



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,547	11/28/2001	Esa Jalonen	4208-4045	9335
27123	7590	05/16/2008		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER TRUONG, LAN DAI T	
			ART UNIT	PAPER NUMBER
			2152	
			NOTIFICATION DATE	DELIVERY MODE
			05/16/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com  
Shopkins@Morganfinnegan.com  
jmedina@Morganfinnegan.com

<b>Office Action Summary</b>	<b>Application No.</b> 09/995,547	<b>Applicant(s)</b> JALONEN ET AL.	
	<b>Examiner</b> LAN-DAI Thi TRUONG	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/30/2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/30/2008 has been entered.

2. This action is response to communications: application, filed on 11/28/2001; amendment filed 01/30/2008. Claims 1-10, 12-35 are pending; claim 11 is canceled; claims 1, 7, 12, 15, 18-19, 21, 24 and 27-30 are amended; claim 35 is added.

3. The applicant's arguments filed on 01/30/2008 have fully considered but they are moot in view with new ground for rejections.

### **Specification Objection**

4. The specification is objected under CRF 1.75d(1) as has failed to provide antecedent basis for the claim terminology "computer readable medium". The claim(s) must conform to the invention as set forth in the remainder of the specification. And the terms and phases used in the claim(s) must find clear support or antecedent basis in the description so that the meaning of the terms and phases in the claim(s) may be ascertainable by reference to the description. In this instance, Applicant has failed to provide clear definition for the claim terminology "computer readable medium" in the specification, so that one of ordinary skill would be fairly suggested if

“computer readable medium” is structurally and functionally interconnected with instructions in a manner which enables the instructions to act as a computer component and realize its functionality, see (CRF 2106.01).

### **Claim rejections-35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-2, 4-8, 10, 12-15, 31, 35 are rejected under 35 U.S.C 103(a) as being unpatentable over Boursier et al. (U.S. 2004/0151185) and in view of Kashima (U.S. 2002/0087999).**

#### **Regarding claim 1:**

Boursier discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

examining a connection from a client machine: (in Boursier’s system, identifier of incoming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

retrieving a filter parameter for the connection: (filtering parameters is retrieved from a filtering table: Boursier, abstract, lines 8-11; [0033]; [0053]).

implementing the filter parameter as a filter for a multicast program: (the recognized packets are filtered using the filtering parameters those retrieved from the filtering table: abstract, lines 8-14; [0037]; [0053]).

However, Boursier does not explicitly disclose a service information table created in the client machine.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing for various data types which are to be stored and processed, (abstract, lines 1-7).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver to implement filtering broadcast data into Boursier's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 35:**

Boursier discloses the invention substantially as claimed, including a terminal, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the terminal comprising:

a memory device for storing a program: (a memory for storing filtering parameters: Boursier, [0061]-[0063]).

a processor in communication with the memory device (processor executes numbers of programs such as determining identifiers for entering data, retrieving parameters from the memory for filtering the entering data: Boursier, [0035]; [0061]-[0063]) the processor operative with the program to:

examining a connection from a client machine: (in Boursier's system, identifier of incoming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

retrieving a filter parameter for the connection: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

implementing the filter parameter as a filter for a multicast program: (the recognized packets are filtered using the filtering parameters: Boursier, abstract, lines 8-14; [0037]; [0053]).

However, Boursier does not explicitly disclose a service information table created in the client machine.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, (abstract, lines 1-7).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Boursier's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 7:**

Boursier discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

examining a filter: (comparing data flow/recognized packet identifier with data filters: Boursier, [0005])

determining a connection the filter is associated with: (determining filter parameters for recognized packet identifier to implement packet filtering process: Boursier, [0037]).

examining a plurality of connections from a client machine: (recognizing packets identifiers for entering data: Boursier, [0023]; [0051]).

the filter parameter is fetched from a service information table: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

However, Boursier does not explicitly disclose a filtering table created in the client machine; removing the filter if the connection from the client machine does not correspond to the connection the filter is associated with;

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Boursier's system in order to

provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 15:**

Boursier discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

examining a message received from a client machine: (in Boursier's system, identifier of incoming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

retrieving a filter parameter for a connection to the client machine: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

However Boursier does not explicitly disclose a service information table created in the client machine; removing the filter based on the filter parameter.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Boursier's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 31:**



In addition to rejection in claim 1, Boursier- Kashima further discloses a wireless handled terminal: (Kashima: abstract, lines 1-7; [0095]-[0097]).

**Regarding claims 2, 8 and 13:**

In addition to rejection in claims 1, 7 and 12, Boursier- Kashima further discloses a receiver is integrated with the client machine: (Kashima: abstract, lines 1-7; [0095]-[0097]).

**Regarding claims 4-5, 10, 12:**

Those claims are rejected under rationale of claim 1.

**Regarding claims 6 and 14:**

In addition to rejection in claims 1 and 12, Boursier- Kashima further discloses receiver is a digital broadcast receiver: (Kashima: abstract, lines 1-7; [0095]-[0097]).

**Claims 21-23, 33 are rejected under 35 U.S.C 103(a) as being un-patentable over Boursier et al. (U.S. 2004/0151185) in view of Kashima (U.S. 2002/0087999) further in view of Wootton et al. (U.S. 6,128,298).**

**Regarding claim 21:**

Boursier discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

detecting a multicast data connection: (in Boursier's system, incoming packet is detected, and identifier of the coming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

associating the data connection with a filter parameter: (determining filter parameters for recognized packet identifier to implement packet filtering process: Boursier, [0037]).

fetching the filter parameter: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

accepting data from the data connection; wherein said data is processed based on the filter parameter: (the recognized packets are filtered using the filtering parameters: Boursier, abstract, lines 8-14; [0037]; [0053]).

However Boursier does not explicitly disclose a service table created in a receiving node; creating a socket; binding the socket to a port number.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (abstract, lines 1-7; [0095]-[0097]).

While Wootton also discloses a socket is defined based on associations with ports, see (column 5, lines 40-67; column 6, lines 62-67).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering and Wootton's ideas of defining socket based on associations with system ports into Boursier's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 22:**

In addition to rejection in claim 21, Boursier -Kashima-Wootton further discloses digital broadcast receiver: (Kashima: abstract, lines 1-7).

**Regarding claim 23:**

In addition to rejection in claim 22, Boursier -Kashima-Wootton further discloses examining a table containing service information: (comparing data flow/recognized packet identifier with data filters: Boursier, [0005]).

**Regarding claim 33:**

In addition to rejection in claim 21, Boursier -Kashima-Wootton further discloses implementing in a wireless handheld terminal: (Kashima: abstract, lines 1-7).

**Claims 18, 24, 29 and 32 are rejected under 35 U.S.C 103(a) as being un-patentable over Haggerty et al. (U.S. 6,331,983) in view of Kashima (U.S. 2002/0087999) and further in view of Boursier et al. (U.S. 2004/0151185).**

**Regarding claim 18:**

Haggerty discloses the invention substantially as claimed, including a method which can be implemented in a computer hardware or software code for managing a filter, the method comprising:

detecting an IGMP packet containing an instruction to join or leave a multicast group, said IGMP packet being associated with an entry in a table: (Haggerty discloses a switch receives an IGMP joint group message from a host: column 28, lines 45-64; figure 10)

removing a filter corresponds to the IGMP message having the instruction to leave a multicast group: (Haggerty discloses method for removing filter in response to upmap message/leave message: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

adding a filter corresponding to the IGMP packet having the instruction to enter multicast group: (filter is updated in response to receiving a new join to multicast group: Haggerty, column 5, lines 12-16).

However, Haggerty does not explicitly disclose follow features:

a packet being associated with an entry in a service table information table created in a receiving node: (In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed: abstract, lines 1-7; [0095]-[0097]).

removing a filter based on a filter parameter associated with the entry in the table; wherein the parameter, upon which filter removal is based from the service table: (Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (abstract, lines 1-7; [0095]-[0097]).

adding a filter based on a filter parameter associated with the entry in the table; wherein the filter parameter, upon which filter addition is based from the service information table: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima; abstract, lines 1-7; [0095]-[0097]).

However, Haggerty- Kashima does not explicitly disclose follow feature:

the parameters is retrieved from the service table: (in analogous art, Boursier discloses filtering parameters is retrieved from a table: abstract, lines 8-11; [0033]; [0053]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver to implement filtering broadcasting data and Boursier's ideas of retrieving filtering parameters to implement filtering coming broadcast data flow into Haggerty's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 29:**

This claim is rejected under rationale of claim 18.

**Regarding claim 32:**

In addition to rejection in claim 18, Haggerty- Kashima - Boursier further discloses implementing in a wireless handheld terminal: (Kashima: abstract, lines 1-7).

**Regarding claim 24:**

Haggerty discloses the invention substantially as claimed, including a method which can be implemented in a computer hardware or software code for managing a filter, the method comprising:

detecting a data connection being closed; leaving a multicast group; removing a filter based on the filter parameter: (Haggerty discloses method for removing filter in response to upmap message/ leave message: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

However, Haggerty does not explicitly disclose associating the data connection with a filter parameter; fetching, from a service information table, the filter parameter.

In analogous art, Boursier discloses determining filter parameters for recognized packet identifier to implement packet filtering process ([0037]) and fetching the filter parameter: (filtering parameters is retrieved from a table (abstract, lines 8-11; [0033]; [0053])).

However, Haggerty- Boursier does not explicitly disclose creating a service information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering and Boursier's ideas of retrieving filtering parameters to implementing coming broadcast data flow into Haggerty's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Claims 3 and 9 are rejected under 35 U.S.C 103(a) as being un-patentable over Boursier- Kashima in view of Duvall et al. (U.S. 5,884,033).**

**Regarding claims 3 and 9:**

Boursier- Kashima discloses the invention substantially as disclosed in claims 1 and 7, but does not explicitly teach examining a user datagram protocol port.

In analogous art, Duvall teaches method matching ports and IP addresses: (column 1, lines 41-52).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Duvall's ideas of associating/interacting between a internal table and a filter database to determine whether an action needed into Boursier- Kashima's system in order to provide efficient messages filtering system, see (Duvall, column 1, lines 7-9).

**Claims 25-26 are rejected under 35 U.S.C 103(a) as being un-patentable over Haggerty-Kashima- Boursier in view of Duvall et al. (U.S. 5,884,033).**

**Regarding claim 25:**

Haggerty-Kashima- Boursier discloses the invention substantially as disclosed in claim 24, but does not explicitly teach polling a UDP Listener Table.

In analogous art, Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to determine whether an action needed to be taken, see (title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Duvall's ideas of associating/interacting between a internal table and a filter database to determine whether an action needed into Haggerty-Kashima- Boursier's system in order to provide efficient messages filtering system, see (Duvall, column 1, lines 7-9).

**Regarding claim 26:**

In addition to rejection in claim 25, Haggerty-Kashima- Boursier -Duvall further discloses identifying multicast data: (Haggerty: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

**Claims 28 and 34 are rejected under 35 U.S.C 103(a) as being un-patentable over Duvall et al. (U.S. 5,884,033) in view of Kashima (U.S. 2002/0087999) and further in view of Wootton et al. (U.S. 6,128,298).**

**Regarding claim 28:**

Duvall discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code, the method comprising:

polling a UDP Listener Table; correlating a UDP entry with a service information table entry: (Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to determine whether an action needed to be taken: title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

However, Duvall does not explicitly disclose the filter parameter is retrieved from a service information table created in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (abstract, lines 1-7; [0095]-[0097]).



However, Duvall- Kashima does not explicitly disclose identifying an active status as the filter status; removing a data filter corresponding to a filter parameter of the identified SIT entry; and changing the filter status of the service information table entry.

In analogous art, Wootton discloses filter table includes changed statuses based on session connection conditions; if the connection is dropped, then the entry in table is deleted, see (column 6, lines 15-50).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver to implement filtering broadcasting data and Wootton's ideas of including changed statuses in filter table based on session connection conditions with Duvall's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Regarding claim 34:**

In addition to rejection in claim 28, Duvall- Kashima- Wootton further discloses a wireless handled terminal: (Kashima: abstract, lines 1-7; [0095]-[0097]).

**Claim 27 is rejected under 35 U.S.C 103(a) as being un-patentable over Krumel et al. (U.S. 7,013,482) in view of Wootton et al. (U.S. 6,128,298).**

**Regarding claim 27:**

Krumel discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code, the method comprising:

detecting a IGMP message: (in Krumel's system, IGMP message is detected: column 12, lines 35-60).

retrieving a filter parameter from an service information table created in a receiving node: (Krumel discloses a rule-base filters created in a data protection device. The data protection device receives data packets from internet service provider, analyzes the received data packets and implements data packet filtering by using the rule-base filters: figure 1; column 4, lines 45-67; column 7, lines 1-52).

However, Krumel does not explicitly disclose activating a filter based on the filter parameter; and changing a filter status in the service information table.

In analogous art, Wootton discloses filter table includes changed statuses based on sessions connection conditions, see (column 6, lines 15-50).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Wootton's ideas of including changed statuses in filter table based on sessions connection conditions with Krumel's system in order provide an efficient filtering system.

**Claim 16 is rejected under 35 U.S.C 103(a) as being un-patentable over Boursier-Kashima in view of Krumel et al. (U.S. 7,013,482)**

**Regarding claim 16:**

Boursier- Kashima discloses the invention substantially as disclosed in claim 15, but does not explicitly teach IGMP message.

In analogous art, Krumel discloses method for filtering IGMP message, see (column 12, lines 35-60).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krumel's ideas of filtering IGMP message into Boursier-Kashima's system in order provide an efficient broadcasting data filtering system.

**Claim 19 is rejected under 35 U.S.C 103(a) as being un-patentable over Duvall et al. (U.S. 5,884,033) in view of Kashima (U.S. 2002/0087999) and further in view of Boursier et al. (U.S. 2004/0151185).**

**Regarding claim 19:**

Duvall discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code, the method comprising:

comparing each entry in a UDP listen Table to each entry in a service information table; the first type of entry is present in the UDP table and not present in the service table; the second type of entry is present in the UDP table and not present in the service table: (Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to determine whether an action needed to be taken: title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

However Duvall does not explicitly teach creating a service information table in a receiving node; removing a filter based on a filter parameter associated with the entry.

Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The

Art Unit: 2152

filtering table is scalable, such as, entries in the filtering table can be deleted or added, (abstract, lines 1-7; [0095]-[0097]).

However Duvall- Kashima does not explicitly disclose retrieving a filter parameter of a first type of entry; implementing a filter parameter of the first type of entry as a first filter; retrieving a filter parameter of a first type of entry.

In analogous art, Boursier discloses filtering parameters is retrieved from a table. The recognized packets are filtered using the filtering parameters; see (abstract, lines 8-14; [0037]; [0053]; [0033]; [0053]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering and Boursier's ideas of retrieving filtering parameters to implementing coming broadcast data flow into Duvall's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

**Claim 20 is rejected under 35 U.S.C 103(a) as being un-patentable over Duvall-Kashima-Boursier in view of Krumel et al. (U.S. 7,013,482).**

**Regarding claim 20:**

Duvall-Kashima-Boursier discloses the invention substantially as disclosed in claim 19, but does not explicitly teach UDP entry is identified by IP address.

In analogous art, Krumel discloses the transmitting packet is determined if allowed to pass as valid packet or denied as an invalid packet regarding matching between IP addresses and enter ports: column 7, lines 5-15; column 9, lines 35-48).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krumel's ideas of matching between IP addresses of transmitting packets with enter ports to determine if the transmitting packet is valid or invalid to be passed into a network into Duvall-Kashima-Boursier's system in order to providing efficient network firewall system, see (Krumel: column 1, lines 10-12; column 2, lines 4-24).

**Claim 30 is rejected under 35 U.S.C 103(a) as being un-patentable over Krumel et al. (U.S. 7,013,482) in view of Kashima (U.S. 2002/0087999).**

**Regarding claim 30:**

Krumel discloses the invention substantially as claimed, including a computer readable medium including instructions, that can be implemented in a computer hardware or software code, the method comprising:

finding a service information table entry that corresponds to a UDP entry having a local IP address associated with a port number of a multicast connection: (Krumel discloses state rules filters contains associations between IP addresses and ports. The transmitting packet is determined if allowed to pass as valid packet or denied as an invalid packet regarding matching between IP addresses and enter ports: column 7, lines 5-15; column 9, lines 35-48).

activating a filter that is in both tables and for which the filter is not applied: (Krumel discloses the packet filtering processes can be set as enable state or disable state: column 12, lines 10-20).

retrieving a filter parameter from a service information table: (in Krumel's system, filters are checked to determine if transmitting packet is valid to pass or invalid to pass: abstract; column 11, lines 30-55; column 7, lines 45-65).

However, Krumel does not explicitly disclose creating service information table in a receiving node, removing a filter that contains a filter parameter corresponding to a service information table entry with which there is no UDP entry associated;

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, see (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Krumel's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

The prior arts made of records and not relied upon are considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "event or polling drive DVB-T filter detection": WO 98/05150; 6687551; 2002/0087999; 2004/0151185.

## **Conclusions**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan-Dai Thi Truong whose telephone number is 571-272-7959. The examiner can normally be reached on Monday- Friday from 8:30am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05/08/2007.

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152